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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/536,024      | 03/27/2000  | Mitsunobu Yoshida    | 0039-7661-2SRD      | 4024             |

22850 7590 09/04/2003

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| EXAMINER |
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AKKAPEDDI, PRASAD R

|          |              |
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| ART UNIT | PAPER NUMBER |
|----------|--------------|

2871

DATE MAILED: 09/04/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/536,024

Applicant(s)

YOSHIDA, MITSUNOBU

Examiner

Prasad R Akkapeddi

Art Unit

2871

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12 June 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-28,49 and 50 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-28,49 and 50 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 March 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All   b) ☐ Some \*   c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 05/27/2003 has been entered.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-28 are rejected under 35 U.S.C. 102(e) as being anticipated by Yonekubo (U.S. Patent No. 6,470,115).

As to claims 1, 8, 15 and 22: Yonekubo discloses a display device (2) comprising a light transmitting member (21), a light source (5) that irradiates the light transmitting member with light and a control mechanism (3 and 1) configured to switch between total reflection and transmission a behavior of the

light, incident into the light transmitting member from the light source, at an interface between the light transmitting member and an external region (col. 6, line 61) adjacent to the light transmitting member, wherein the display device is configured to cause at least a portion of the light (col. 12, line 36), emitted by the light source and irradiating the light transmitting member (21) to be output as a light component having directivity from the light transmitting member onto a scattering surface (7) without being scattered, the scattering surface (7) is spaced apart from the light transmitting member and the control mechanism (Fig. 10), and the light component is used to display images (col. 12, lines 28-39).

Yonekubo also discloses plurality of control mechanisms arrayed on the light transmitting member (Fig. 11 and col. 12, lines 43-46), as recited in instant claims 8 and 22. Yonekubo also discloses a light transmitting material, either glass or transparent plastic (col. 5, line 42), and the control mechanism configured to change a contact state of the light transmitting material is disclosed as an on-off control (col. 7, line 35-38).

As to claims 2-7, 9-14, 16-21 and 23-28: Yonekubo discloses that the control mechanism is configured to change a refractive index of the external region (col.6, lines 64-67), the control mechanism comprises a transparent member (36) opposing the light transmitting member (Fig. 1) and a moving mechanism configured to change the state of the transparent member (36) with respect to light transmitting member between a contact state and a separated

state (on-off control, col. 7, lines 35-38). Yonekubo discloses the light transmission and reflection, thus displaying of images on a scattering surface (7).

Yonekubo discloses that the light transmitting material is either glass or transparent plastic, thus a solid and being plastic, is an elastic material.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 49-50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yonekubo.

Yonekubo discloses a manufacturing method of the control mechanism (optical switch), capable of switching between total reflection and transmission a behavior of light, incident into a light transmitting member from a light source, at an interface between the light transmitting member and an external region adjacent to the light transmitting member and arranging these control mechanisms in a two-dimensional form, it is possible to provide an image display device capable of color display with high resolution (col. 12, lines 6-27).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to adapt the method of manufacturing the control mechanism and the resulting display device as disclosed by Yonekubo to obtain a color display with high resolution (col. 12, line 23).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Prasad R Akkapeddi whose telephone number is 703-305-4767. The examiner can normally be reached on 7:00AM to 5:30PM M-Th.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert H Kim can be reached on 703-305-3492. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9318 for regular communications and 703-872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0530.



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August 4, 2003

  
PRASAD R AKKAPEDDI  
PRIMARY EXAMINER